

January 24, 1950

Dr. C. L. Moody
The Ohio Oil Company
P. O. Box 1129
Shreveport 91, Louisiana

Dear Dr. Moody:

Thank you very much for your long and informative letter of January 17.

I wish I had been a little more conscious of the problems of the Arp sand when I was mapping southeast of Troup. But it is perhaps good that I was not, because the time allotted to the project had to be fought for and was needed for other problems in the same area. There is a buried hill of Wilcox of a height of about 70 feet under the Carrizo sand. The Carrizo turns glauconitic and fossiliferous in the south part of the area in its uppermost 10 feet. The lower Reklaw has marine and brackish facies of different thicknesses, lithology, and paleontology, and the two facies are separated by a cross-bedded barrier that is thicker than either facies. The upper Reklaw changes somewhat, too.

Now to the Arp question. Tracing the Arp from the Smith-Cherokee County line southward it was found to thin at a rate of 3.2 feet per mile from 61.0 feet at the county line to 48.2 feet at Griffin. Hand in hand with the thinning goes a gradual shaling-up, but even at Griffin the Arp is still a sand rather than a clay. Similarly it thins from east to west. Considerable difficulties were encountered in recognizing the Arp in the southwest part of the mapped area, so much had it shaled-up; it is even slightly fossiliferous there. Nevertheless, it was possible to distinguish it from the underlying Reklaw. Whether the Arp shales-up to the southwest, beyond the area mapped, to such an extent that it can no longer be separated from the Reklaw I do not know. I was simply not aware of the problem and did not explore in that direction. Also I have not yet seen the Queen City type locality.

The Omen can be demonstrated to consist of a series of lenses each with a long axis pointing in a different direction and slightly different stratigraphic levels. I interpret it as the fillings of anastomosing tidal channels in a lagoon. No fossils were found in it.

So on the basis of what I have seen I wish to retain the Arp, Omen, and upper sand member as members of the Queen City formation.

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Roy Hazzard is positive he did not name the Arp and claims you did. In view of the conflicting testimony concerning the authorship of the name I am relying on what I have heard from various other geologists. They all credit you with the authorship, so it might as well stay with you.

Your information certainly has been very valuable to me and I wish to thank you again for it. Perhaps we can go over the ground some day to settle these problems.

With best personal regards.

Sincerely yours,

H. B. STEINZEL
Geologist

HBS:efd

P. S.

I assume there is really no objection on your part for crediting you with the Arp. Also I hope to have your permission to quote parts of your letter of January 17; it is highly quotable.

H. B. S.